INSTALLATION
MANUAL

DSC
Digital Security Controls

PC2525
Version 1.O

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FEATURES

Keypad Programmable

The PC2525 is complete with a default program so that it is operational with a minimum of programming. The control panel is completely programmable from the keypad.

EEPROM Memory

The panel uses EEPROM memory which will retain all program information even if AC and battery power is removed from the panel. The EEPROM memory can be reprogrammed thousands of times.

Static/Lightning Protection

The PC2525 has been carefully designed and tested to provide reliable protection against static and lightning induced transients. Our special "Zap-Trac" circuit board design catches high voltage transients right at the wiring terminals, and transient protection devices are placed in all critical areas to further reduce damaging voltages.

Supervision

- Low or disconnected battery
- Loss of AC power
- Loss of time on system clock
- Fire zone supervision using end-of-line resistance
- Bell supervision indicating open circuit or fuse failure
- Test code feature which transmits a communicator test code to the monitoring station at programmed intervals
- Keypad-activated bell/siren and communicator test feature
- Telephone Line supervision
- Microprocessor "Watchdog" circuit

Operation

- Download / Upload capability
- Programmable auto downloading
- Swinger shutdown
- Transmission delay
- 8 Access Codes
- Master Code
- All zones programmable as fire zones
- Programmable test transmission
- Zone bypass from the keypad
- Eight zones
- Bell / Siren zone
- Programmable output
- Three dedicated keys (Fire/Auxiliary/Panic)
- Backlit aesthetically pleasing keypad

Specifications

PC2525 Control Panel

- Eight fully programmable zones
  - EOL resistor supervised option
  - all zones programmable as fire zones
  - maximum zone loop resistance: 100 ohms
- Bell / Siren outputs: fused at 5 amp
  - steady for burglary
  - pulsed for fire
- Programmable output: 50 mA
  - 15 programmable options
- Auxiliary power output: 400 mA maximum
- PC2550RK keypads: 5 maximum
- Maximum Current (Auxiliary and Keypad supplies)
  - 575 mA with 16 VAC 40 VA transformer
  - 250 mA with 16 VAC 20 VA transformer
- Battery: 12 VDC, 1.2 Ah minimum
  - 1.2 Ah provides 3 hours of stand-by at 200 mA auxiliary output (Auxiliary and Keypad supplies)
  - 4.0 Ah provides 4.5 hours of stand-by at 575 mA auxiliary output (Auxiliary and Keypad supplies)
- Transformer: 16 VAC, 20 VA minimum
- Panel dimensions:
  - 11" high × 11.8" wide × 3.3" (279 mm × 300 mm × 84mm)
  - Surface mount
- Panel colour: light beige

PC2550RK Keypad

- Three keypad activated zones
  Fire/Auxiliary/Panic
- Backlit keys
- 7 system lights
  Ready, Armed, Memory, Bypass, Trouble, Fire, Program
- 8 Zone Lights
- Keypad dimensions
  - 5.5" high × 4.5" wide × 1" deep (140 mm × 114 mm × 25 mm)
  - Surface mount
- Keypad colour - mist

INSTALLATION

Mounting the Panel

Select a dry location close to an unswitched AC source and close to the telephone line connection. Remove the control panel, the mounting hardware and the keypad from the cardboard retainer inside the cabinet. Before attaching the cabinet to the wall, press the five circuit board mounting studs into the cabinet from the back. Once the cabinet is mounted to the wall, pull all the cables into the cabinet and prepare them for connection. Use a meter to test the wiring for opens, shorts and grounds. Press the circuit board onto the mounting studs. *Complete all wiring to the control panel before applying AC power or connecting the battery.*

Mounting the Keypad

Keypads should be located close to the designated "Entry-Exit" doors and mounted at a height convenient for all users.

Auxiliary Power Connection

The auxiliary power supply can be used to power keypads, motion detectors and other devices that require 12 VDC. Refer to the Hook-up Diagram for Fire Zone wiring instructions. The total load for the auxiliary power output must be calculated for all devices connected across the AUX+/- terminals and for devices connected between the AUX+ and PGM terminals; allow 35 mA for each PC2550RK keypad connected to the panel. The output current cannot exceed 575 mA.

Bell/Siren Connection

Observe polarity when connecting siren drivers, sirens and polarized bells.

PGM Terminal Connections

The PGM terminal is a switched negative output which can be controlled by various programming options; refer to Programming Section [06]. Devices controlled by the PGM output must be connected between the negative PGM terminal and the AUX+ terminal.

Keypad Wiring

Up to five keypads may be connected in parallel. Do not connect multiple keypads on the same wire run. For stand-by loading purposes, assume a current draw of 35 mA per keypad. This estimate represents the panel in the disarmed state with two open zones.

AC Power Wiring

Complete all wiring to the control panel before connecting AC power or the battery. Do not plug the transformer into an outlet that is controlled by a switch.

Battery Connection

Observe polarity when connecting the battery; if the battery connection is made in reverse, the battery fuse will open. The battery charging voltage is factory set and normally needs no adjustment.

If AC power is OFF and the battery voltage is approximately 9.5 V or lower, the battery will be disconnected and the panel will power down. To power up again, the AC will have to be re-established. This feature is designed to prevent damage to the battery due to prolonged discharging.

Telephone Line Wiring

Notice: Ensure that plugs and jack meet the dimension, tolerance and metallic plating requirements of 47 C.F.R. Part 68, Subpart F.

For proper operation, there must be no other telephone equipment connected between the control panel and the telephone company's facilities.

Warning: FCC restricts the use of this equipment on certain types of telephone lines. Read the FCC Compliance Statement at the rear of this manual. Also, do not use this equipment on a telephone line equipped with "call holding" features as the tones generated by these features may interfere with communicator operation.

Do not connect the alarm panel communicator to telephone lines intended for use with facsimile (FAX) machines. These lines may incorporate a voice filter which disconnects the line if other than FAX signals are detected, resulting in incomplete transmissions.

Ground Connection: EGND Terminal

The PC2525 has been designed to function properly whether the control panel is connected to ground or not. If the control panel is to be grounded, the connection to earth ground must be made to a copper cold water pipe or to a properly installed ground rod not less than 6' (2.83 m) in length. Note that a poor ground connection may actually interfere with the system's operation and may cause damage to the control panel.

Fire Zone Wiring

Any number of the 8 zones may be programmed as Fire Zones; refer to Programming Section [01].
Smoke detectors should be the latching type and have normally-open alarm initiating contacts. Power wiring from the AUX+ / PGM terminals should be supervised using a DSC RM-1 relay after the last smoke detector. The RM-1 normally-open contacts (closed with power applied) should be wired in series with the alarm initiating end-of-line resistor so that if power to the detectors fails, a fire zone trouble will be initiated.
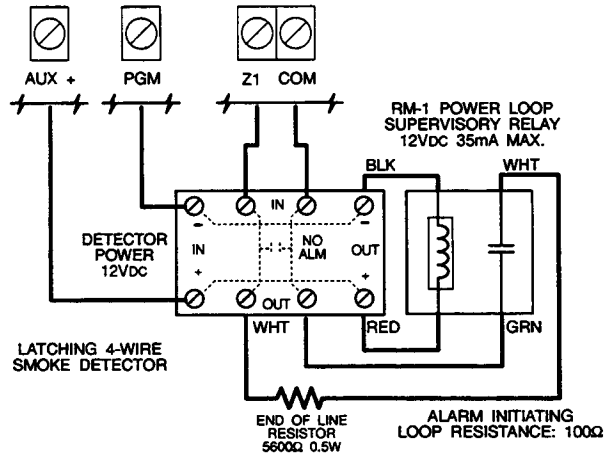
Burglary Zone Wiring

Refer to the Hook-up Diagram for burglary zone wiring instructions. Refer to Programming Section [01] for information on programming zone definitions.
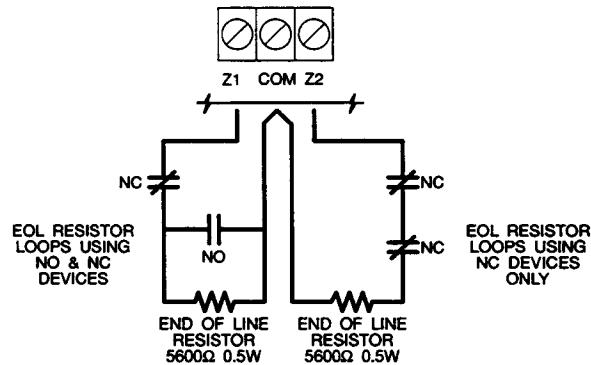
GUIDELINES FOR LOCATING SMOKE DETECTORS

Experience has shown that all hostile fires in family living units generate smoke to a greater or lesser extent. Experiments using typical fires in family living units indicate that detectable quantities of smoke precede detectable levels of heat in most cases. For these reasons, NFPA standard 74 requires smoke detectors to be installed outside of each sleeping area and on each additional story of the family unit.

The following information is for general guidance only and it is recommended that NFPA standard 74 be consulted and that the smoke detector manufacturer's literature be used for detailed installation instructions.

It is recommended that additional smoke detectors beyond those required be installed for increased protection. The added areas include: basement, bedrooms, dining rooms, furnace room, utility room and hallways not protected by the required detectors.
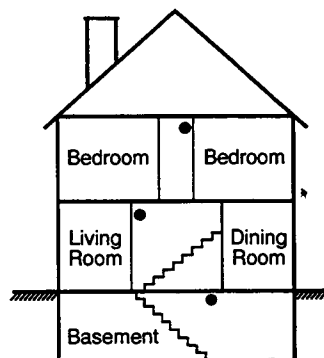
Figure 3: A smoke detector should be located on each story of the living unit.
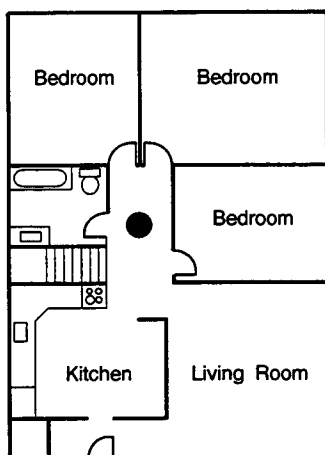
Figure 1: A smoke detector should be located between the sleeping area and the rest of the family unit.
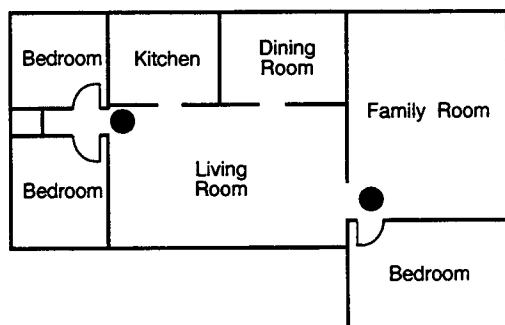
Figure 2: In family living units with more than one sleeping area, a smoke detector should be located to protect each sleeping area.
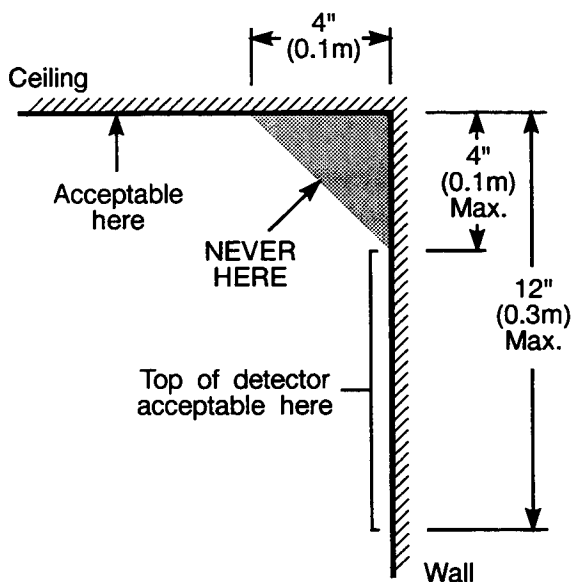
NOTE: Measurements shown are to the closest edge of the detector.

Figure 4: Smoke Detector mounting and "Dead" Air Space. The smoke from a fire generally rises to the ceiling, spreads out across the ceiling surface and begins to bank down from the ceiling. The corner where the ceiling and wall meet is an air space into which the smoke may have difficulty penetrating. In most fires, this "dead" air space measures about 4 in. (0.1m) along the ceiling from the corner and about 4 in. (0.1m) down the wall as shown in Figure 4. Detectors should not be placed in the "dead" air space.

4

KEYPAD FUNCTIONS

Introduction

The PC2550RK Keypad provides complete information and control of the PC2525 control panel. The panel can be fully programmed from the keypad. The 8 Zone Lights provide alarm and status indication for the alarm circuits. Each zone can be programmed to be a burglary zone or a fire zone. The 7 system lights guide the user in operating the system and the built-in sounder lets the user hear correct key entries and other alert signals. The 12-digit keypad is used for code entry and other programming functions. The single button [F]ire, [A]uxiliary and [P]anic keys provide the user with simple operation for emergency signalling. All keypad entries are made by pressing one key at a time.

Master Code

A default Master Code "1234" is factory programmed into the PC2525. The Master Code is used to arm and disarm the panel, to reset the bells after an alarm, to program up to 7 additional codes using the [*][5] command, and to enter other user functions using the [*][6] command. The panel default program allows the user to change the Master Code. The panel can be programmed so that the user cannot change the Master Code; refer to Programming Section [09] Second System Option Code.

Second Master Code

A second Master Code can be programmed into the PC2525. This code can be changed by the installer only. The default Second Master Code is blank.

Installer's Programming Code

A default Installer's Programming Code "2525" is programmed into the PC2525. Using the [*][8][Installer's Code] command, the installer can gain access to the system to enter panel program information. This code can be changed by the installer.

Arming

Before arming the panel, close all protected doors and windows and stop movement in areas covered by motion detectors. If the "Trouble" light is on, check for the type of trouble ([*][2] command) and correct the fault condition. If the "Bypass" light is on, insure that the zones bypassed are bypassed intentionally, ([*][1] command). If the "Ready" light is not on, one or more zones are open. The system can only be armed when the "Ready" light is ON. To arm, enter a 4-digit Access Code. As each digit is entered, the keypad sounder will beep. When the correct Access Code has been entered the "Armed" light will come ON and the keypad will beep 6 times. If the Access Code has been entered incorrectly, the keypad will sound one long tone. Press the [#] key and enter the Access Code again.

When the correct Access Code has been entered and the "Armed" light is ON, exit through the designated entry/exit door before the exit delay time expires. At the end of the allowed exit time, all lights on the keypad will go out except the "Armed" light. The "Bypass" light will be ON if a zone is bypassed and if Show Bypassed Status While Armed is programmed in Section [09], Zone Light 7 ON.

See Installer's Programming Section [*][8] command for instructions on changing the Exit Delay time.

Auto-Bypass/Home-away Arming

If a correct Access Code is entered, and you do not exit the premises, the system will, at the end of the exit delay time, arm with interior zones automatically bypassed if those interior zones have been programmed as "Home-away" zones. The "Bypass" light will come ON.

This is a convenience feature for the user who wishes to remain at home with the system armed. The user does not have to manually bypass the interior zones.

To reactivate the interior zones that have been automatically bypassed, press [*][1]. The "Bypass" light will go out. If the bypassed zones were programmed as Home-away with delay, the "Bypass" light will go out after the delay. This command is a quick method of fully arming the system before going to bed and is useful for the user who has a keypad outside the areas protected by the interior zones.

Arming Without Entry Delay

To eliminate the Entry Delay, arm the system using [*][9][Access Code]. An exit may be made as in normal arming. The system will arm as described above in Auto-bypass / Home-away arming whether an exit is made or not. The "Armed" light will flash to indicate that the system is armed without the entry delay.

Disarming

Enter the premises through the designated entry-exit door. The keypad sounder will be on as a reminder to disarm the system. Go to the keypad and enter a valid Access Code. If an error is made entering the code, press the [#] key and enter the code again. The "Armed" light will go out and the sounder will stop. The correct Access Code must be entered before the entry time expires or the panel will go into alarm.

If an alarm occurred while the panel was armed, upon disarming the "Memory" light and the Zone Light(s) of the zone(s) that caused the alarm will flash for 2 minutes. Pressing the [#] key will stop the flashing, turn the Zone Light(s) OFF, and return the panel to the ready mode. The "Memory" light will stay on steady to indicate that an alarm did occur during the last armed period. To view the zone(s) that caused the alarm, see Alarm Memory Display [*][3].

Quick-Exit Command

[*]+[0] when Armed

Entering [*][0] when the system is armed will allow the user to exit the premises through any delay zone without altering the status of the system if the Quick-exit feature is enabled. The Quick-exit feature is enabled in Programming Section [08] First System Option Code. For 2 minutes after [*][0] is entered into an armed system, one and only one delay zone may be tripped. Any additional activity on any other active zone will cause that zone to begin its alarm sequence.

Quick-Arm Command

[*]+[0] when Disarmed

Entering [*][0] is accepted as a valid arming code if the Quick-Arm feature is enabled. This command is often used when individuals are required to arm the system but not disarm the system. This could be used with home visitors in the case of a residential alarm system or for junior employees and maintenance staff in the case of commercial systems. Refer to [*][6] User Functions Command section, for enabling and disabling the Quick-Arm feature.

Zone Bypassing

[*]+[1]

A bypassed zone will not cause an alarm. Use zone bypassing when access is needed to part of a protected area or if damage to contacts or wiring cannot be repaired immediately. The panel can be armed with one or more zones bypassed even if the zone(s) are open. The "Ready" light will be ON and the "Bypass" light will be ON if a zone is bypassed. A fire zone cannot be bypassed.

If the "Bypass" light is ON when preparing to arm, use the [*][1] command to display the bypassed zones and ensure that any zone displayed as being bypassed is intentionally bypassed.

Zone bypasses are automatically cancelled when the panel is disarmed.

To Bypass Zones:

Enter [*][1]; the "Bypass" light will start flashing.

Enter the [number of the zone to be bypassed]; the Zone Light will come ON to indicate that the zone is bypassed. To remove a bypass, enter the zone number and the Zone Light will go OFF. To remove all bypasses, press the [0] key. Continue entering the zone numbers for the zones you want bypassed. Press [#] to return to Ready.

To Recall Bypassed Zones:

Enter [*][1][9]. This command will recall the last zone or group of zones that were bypassed. If the same group of zones are bypassed regularly, the bypass recall feature can be used instead of bypassing the zones individually.

Bypass Disable:

The PC2525 can be programmed by the installer to prevent certain zones from being bypassed by the user. Lights for these zones will not come ON in response to the bypass command. Refer to the Zone Bypass Mask instructions in Programming Section [12].

Also, Access Codes may be programmed so that they will be unable to bypass zones. Refer to the Programming Section [13], Bypass Mask for Access Codes 1-8.

Access Code Required for Bypass:

The PC2525 can be programmed to require an Access Code to be entered before zones are bypassed. To enable this option, enter Section [9] and turn Zone Light 3 ON. A user must now enter [*][1][Access Code] in order to bypass zones.

Trouble Conditions
[*]+[2]

The PC2525 continuously monitors a number of trouble conditions. If one of these conditions occurs, the keypad "Trouble" light will come ON and the buzzer will sound 2 short beeps every 10 seconds. To silence the buzzer, press the [#] key. The buzzer will stop but the "Trouble" light will remain ON until the trouble condition is cleared. Refer to Programming Sections [39] and [40] for information on the trouble conditions that can be transmitted to the monitoring station.

To view the trouble condition, press [*][2].

1 **Low Battery.** If the battery voltage is low, the battery is disconnected or the battery fuse is blown, a trouble will be displayed and can be reported. Only one low battery trouble and restoral transmission will occur per armed period. The low battery trouble display is "latching", and can only be cleared by correcting the problem with the battery.

2 **AC Failure.** On loss of AC power, the "Trouble" light will come ON immediately, but the keypad buzzer will not sound. The keypad buzzer will sound if AC power remains off and the battery reaches a low voltage. The delay before transmitting AC Fail can be programmed from 1 to 99 minutes. See Programming Section [42].

3 **Not Used**

4 **Telephone Line Trouble** If the system detects trouble on the telephone line, this condition will be indicated

5 **Failure to Communicate** If the digital communicator is unsuccessful at communicating with the monitoring station after 8 attempts at each phone number that is tried, a trouble is generated. If a later attempt at communication is successful, the trouble is cleared. The trouble can also be cleared by pressing the [#] key to exit from the trouble view mode.

6 **Bell Circuit Trouble** If the Bell fuse is open or the bell is disconnected, this condition will be indicated.

7 **Fire Alarm Circuit Trouble** An open circuit on any zone programmed as a fire zone will initiate a trouble.

8 **Loss of Time on System Clock** When the PC2525 is powered up or reset, the internal time of day clock needs to be reset to the correct time. The trouble is cleared after entering the trouble view mode then pressing [#] to exit. The trouble will also be cleared on any attempt to set the time of day. Refer to [*][6] User Function Commands for information on setting the clock. Press [#] to return to Ready. **NOTE:** A trouble will not be generated if both the test transmission and Auto-Arm times are not programmed with valid times.

NOTE: If [9] is pressed while in the trouble display mode, the most recent trouble will be displayed on the Zone Lights. This trouble memory is most useful as a diagnostic tool when installing and servicing the PC2525. Press [#] to return to "Ready".

Alarm Memory
[*]+[3]

Alarms caused during the previous armed period are stored in memory. To view these alarms, press [*] then [3]. The "Memory" light will flash and the alarm(s) will be displayed on the flashing Zone Lights.

In addition to the last alarm memory, there are two history levels. After entering the memory mode, pressing the [9] key to display the two levels of alarm history. Each time a key is pressed, the keypad will beep 1, 2 or 3 times to indicate which level of history is being viewed.

When the panel is armed, and if there is an alarm in the First level, the First level is cleared and the contents moved to the Second level. The Second level contents are moved to the 3rd level and the 3rd level contents are discarded. The "Memory" light will be ON only if there was an alarm during the previous armed period. Press [#] to return to Ready.

Door Chime ON / OFF Command
[*]+[4]

The Door Chime feature is used to sound a tone from the keypad whenever a zone programmed as a Chime type is activated. When the Door Chime feature is turned ON, the keypad will beep several times whenever a Chime zone is activated. To turn the feature on or off, enter [*][4]. If the feature is being turned on, the keypad will beep several times. If the feature is being turned OFF, keypad will sound a single long tone.

User Programming Commands
[*]+[5]+[Master Code]

The [*][5] programming command allows the user to program Access Codes 2 through 8; the First Access Code is the Master Code. The factory default for the Master Code is "1234". The 8th Access Code may be changed from a regular code to a One-Time Use Code by turning ON Zone Light 1 in Section [09]. The One-Time Use code allows an individual, such as a service person, to disarm and then re-arm the system. After the code is used, it is erased and will no longer work on the system.

NOTE: The One-Time Use code is only cleared when it is used to arm the system. If the Quick-Arm command [*][0] is used to arm, the One-Time Use code will not be erased.

Programming Access Codes:

Enter [*][5][Master Code] to enter the Access Code Programming Mode; the "Program" light will begin to flash. The Zone Lights are used to indicate the program status of the 8 Access Codes.

Zone Light	Access Code Status
OFF	Code not programmed
Steady	Code programmed
Flashing	Code being programmed

Upon entering this Programming Mode, the Zone Light 1 will be ON to indicate that the Master Code is programmed with the Factory Default Code. The Master Code may be changed here or in Programming Section [04] if the installer chooses to disable user-changing of the Master Code.

Changing or Adding a Code

To change Access Codes 1 to 8, press the corresponding key (1 to 8). The corresponding Zone Light will begin to flash. Enter the new 4-digit number. Do not use the [*] key or [#] key when entering the 4-digit number. After the four digits are entered, the keypad will beep 3 times and the Zone Light will come on steady. If you are changing an existing code, the new code will simply replace the old one. If you wish to program another code, press the number key for the code to be programmed and enter the new 4-digit code. Press the [#] key to exit this section.

Erasing a Code

To erase a code, enter [*][5][Master Code]. Press the key of the code you wish to erase. The Zone Light for that code number will flash. Enter [****].

NOTE: The Master Code cannot be erased. If the Master Code is forgotten and the panel is left disarmed, program a new Master Code using the [*][8][Installer's Code][04] command or use the Second Master Code to reprogram the Master Code. The Second Master Code is programmed using the [*][8][Installer's Code][05] command or in Programming Section [05].

EEPROM Reset

If the Master Code is forgotten and the panel is armed, see Programming Section [99] for instructions on resetting the panel to the factory default condition. Resetting the system is not necessary if the Second Master Code is programmed. Refer to Programming Section [05] for information on using the Second Master Code.

User Function Commands
[*]+[6]+[Master Code]

This function is used to set the System Clock time and to set the Auto-Arm time as well as toggle a number of system functions. As soon as the command is entered, the "Program" light will begin to flash. Enter [*][6][Master Code][Number from list below].

    [1] System 24 Hr. Clock (Enter HH:MM)
    [2] Auto-Arm Time (Enter HH:MM)
    [3] Not Used
    [4] Quick-Arm Enable/Disable
    [5] Auto-Arm Enable/Disable
    [6] Not Used
    [7] Not Used
    [8] System Test Function
    [9] User Initiated Call-up
    [0] Installer's Test (This function will turn off automatically on arming.)

Items [4], [5] and [0] turn ON and OFF various features. When the item key is pressed and the feature is being turned ON, the keypad sounder will beep 3 times. If the feature is being turned OFF the sounder will give one long beep. Pressing item [8] gives a 2-second Bell / Siren and Keypad Light and Buzzer test.

Setting the Clock
[*]+[6]+[Master Code]+[1]

The System Clock is a 24-hour clock. Hours and minutes must be entered as 2-digit numbers.

- HH, hours: 00 to 23 MM, minutes: 00 to 59

   8:05 AM would be entered as 0805; 1:30 PM would be entered as 1330

Setting the system clock tells the system the time of day. If the system is without power, (AC and battery), it cannot continue to keep time. When the panel is powered up, the system clock must be reset. If the time needs to be reset, then a Trouble Condition 8 will be indicated on the keypad (refer to [*][2] System Trouble Display). Trouble Condition 8 will not be generated if the Auto-Arm and Auto-Test times are not programmed with valid times (9999 in these positions disables these features).

Set Auto-Arm Time
[*]+[6]+[Master Code]+[2]

The PC2525 can be programmed to arm at the same time each day. To set the Auto-Arm time, enter [*][6][Master Code][2] then enter the hours and minutes as described at the beginning of this section.

At the selected Auto-Arm time, the bell will sound one short burst every 10 seconds for a 1-minute period if Section [10] Zone Light 7 is OFF. The keypad will also sound for 1 minute. At the end of the 1-minute warning period, the system will be fully armed. There will be no exit delay after this time.

Auto-Arming may be cancelled by pressing any key on the keypad during the 1-minute warning period. When a key is pressed, the warning will be silenced and Auto-Arming will be cancelled. Auto-Arming will be attempted at the same time the next day. During the 1-minute warning period, keyswitch arming or arming using the Quick-Arm command will cancel the Auto-Arm process and will initiate the exit delay before arming the system.

If Programming Section [9] Zone Light 4 is ON, then an Access Code will be required to cancel Auto-Arming. When an Access Code is entered during the 1-minute warning period, the warning will be silenced and Auto-Arming will be cancelled. Auto-Arming will be attempted at the same time the next day.

Quick-Arm
ON/OFF [*]+[6]+[Master Code]+[4]

Pressing [4] while in the User Function Command mode will Enable (3 beeps) or Disable (one long beep) the Quick-Arm feature. With this feature enabled, the panel can be armed by simply entering [*][0].

Auto-Arm
ON/OFF [*]+[6]+[Master Code]+[5]

Pressing [5] while in the User Function Command mode will enable (3 beeps) or disable (one long beep) the Auto-Arm feature. With this feature enabled, the panel will automatically arm at the same time each day. The Auto-Arm time is programmed with the [*][6][Master Code][2] command.

System Test
[*]+[6]+[Master Code]+[8]

Pressing [8] while in the User Function Command mode will sound the bell/siren, the keypad sounder and turn on all the keypad lights for 2 seconds. If a System Test Code is programmed in Section [39], it will be transmitted at the same time.

User Call-up
[*]+[6]+[Master Code]+[9]

Enable the User Call-up Function in Programming Section [70], Zone Light 2. When User Call-up is activated, the system will call the downloading computer. The downloading computer must be waiting for the system to call before downloading can be performed.

Installer's Test
ON/OFF [*]+[6]+[Master Code]+[0]

Pressing the [0] key while in the User Function Command mode will enable or disable the Installer's Test function. This feature allows final testing of the system. When enabled, the bell/siren will operate for 2 seconds each time a zone is put into alarm or when the [F] key is pressed. The bell/siren will also sound for 2 seconds when the [P] key is pressed and the [P] key is programmed for audible operation. As the [A] key generates a silent alarm, the bell/siren will not sound if this key is pressed.

Each zone should be tripped individually to avoid confusion about which zone originates the alarm. To exit the Installer's Test mode, arm then disarm the panel. **NOTE:** The communicator will transmit all alarms and restorals. Disable the communicator if this is not desired (Section [46], Zone Light 1).

Utility Output Command
[*]+[7] or [*]+[7]+[Access Code]

The Programmable Output (PGM terminal) can be programmed for activation by a keypad command. This output can be used to operate other devices such as door openers, special lighting, door strikes or to reset smoke detectors. Refer to Programming Section [09] Light 5. Depending on the option selected, the [*][7] command may require that an Access Code be entered to activate the Utility Output.

When the correct command is entered, the keypad sounder and the PGM output will operate for 5 seconds.

Installer's Programming Command
[*]+[8]+[Installer's Code]

The PC2525 is completely programmed from the keypad by using commands in the [*][8] section. These commands are described in detail in the programming section of this manual. The default Installer's Code is [2525].

At-Home Arming
[*]+[9]+[Access Code]

Entering [*][9] before the arming code will arm the panel without the entry delay on delay zones. Also "Home-away" zones are automatically bypassed. When armed using the [*][9] command, the "Armed" light will flash to remind the user that the system is armed without the entry delay. This command allows the user to remain at home and have an instant alarm on the entry doors.

Keypad Zones [F], [A], [P]

There are three zones which can be activated with single key entries on the keypad. For the [F], [A] and [P] keys to be functional for transmission, they must be enabled by the installer by entering the Alarm and Restoral Codes in Programming Section [38].

[F]ire Key Pressing the [F] key and holding it for 1 second will initiate a local pulsing alarm and, if programmed, will transmit the alarm to the monitoring station. The keypad will sound a series of short beeps once the panel has accepted the alarm. The [F] key may be disabled in Programming Section [10].

[A]uxiliary Key Pressing the [A] key and holding it for 1 second will, if programmed, transmit an Auxiliary alarm to the monitoring station. There is no local alarm and no keypad lights will come ON when this key function is activated. The keypad will sound a series of short beeps upon successful completion of the transmission to the monitoring station.

[P]anic Key Pressing the [P] key and holding it for 1 second will, if programmed, send a transmission to the monitoring station. The alarm signal can be programmed to be audible or silent; see Programming Section [10] Third System Option Code. If programmed as audible, the local bell / siren will sound steadily.

Keypad audible annunciation for the [P] key is programmable in Programming Section [10] for audible (3 beeps) or silent (no buzzer feedback). If programmed for audible, the buzzer will sound once the key input is accepted.

PROGRAMMING

Introduction

The PC2525 is fully keypad-programmable, and also supports downloading programming functions. The system's EEPROM memory can be reprogrammed thousands of times and will not lose program data even after total loss of power. This section of the manual describes how to program the PC2525 using the system's keypad.

Programming

With the system disarmed, enter [✳][8][Installer's Code]; note that the system can only be programmed while it is disarmed. The default Installer's Code is 2525; the Installer's Code should always be changed once programming is complete. Be sure to record the new Installer's Code for future reference! If the Installer's Code is forgotten, the system's factory programming may be restored; refer to Programming Section [99] Factory Default.

When the Installer's Programming Command is entered, the "Armed" light will come ON and the "Program" light will FLASH to indicate that the system is ready for programming. If no keys are pressed for 2 minutes, the system will return to the "Ready" mode. To re-enter the programming mode, enter the [*][8] Installer's Programming Command again.

With the "Armed" light ON, enter 2 digits for the Section to be programmed. Note that Section [00] is reserved for binary programming and is normally only entered on instruction from factory technical personnel. When the section to be programmed is entered, the "Armed" light will go OFF, the "Ready" light will come ON, and the keypad will beep 3 times. The system is now ready to accept program data.

For sections containing 2- and 3-digit numbers, Zone Lights 1 through 4 will indicate, in binary format, the value of the first digit in the section. Refer to "Binary Data Display" for instructions on reading the binary display.

To change the first digit, enter the new digit from the keypad. To leave the first digit unchanged, enter the same number or skip the digit by pressing the [F] key. Once the first digit has been entered or skipped, Zone Lights 1 through 4 will display the value of the second digit. When all digits in a number have been programmed, the keypad will beep twice and display the value of the first digit in the next number.

When all required data for a section is entered, the keypad will beep several times and the "Armed" light will come ON. Enter the number of the next Section to be programmed.

It is not necessary to program all 2- or 3-digit numbers in any given section. A section can be entered and programmed by going only to the digit or digits to be changed and then pressing [#] to return to the Programming Mode. For 2-digit and 3-digit numbers, all digits must be programmed before pressing the [#] key. Only the data entered before pressing the [#] key will be changed in the system's memory.

Reviewing Programmed Data

• Enter the section to be programmed by entering the 2-digit section number.

• Zone Lights 1 through 4 will represent the value, in binary format, of the first digit in the section.

• Press the [F] key to advance the display to the next digit.

• At the end of the section, the keypad will beep several times and then return to the Program Mode so that another section can be selected for review or programming.

Sections [08] through [13] , [46] and [70]

These sections allow system options to be selected. Refer to the Programming Worksheets for information on which options are represented by the Zone Lights in each section.

These sections are programmed by turning the Zone Lights ON and OFF. To turn a light ON or OFF, press a number from 1 to 8. All lights in a section may be turned OFF at once by pressing [0]. When all programming selections have been made, press [#] to save the changes and return to the program mode.

Binary Data Display

Zone Lights 1 through 4 are used to display the value, in binary format, of the data at each digit as shown in the table shown here.

HEX data entry
Refer to HEX Data Programming

Value	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Zone 1	□	■	□	■	□	■	□	■	□	■	□	■	□	■	□	■
Zone 2	□	□	■	■	□	□	■	■	□	□	■	■	□	□	■	■
Zone 3	□	□	□	□	■	■	■	■	□	□	□	□	■	■	■	■
Zone 4	□	□	□	□	□	□	□	□	■	■	■	■	■	■	■	■

■ Zone Light ON
□ Zone Light OFF

HEX Data Programming

Certain Programming Sections may require the entry of data in HEX (hexadecimal, or base 16) format. HEX numbering uses the numbers 0 through 9 and the letters A through F.

The letters A through F are represented by the number keys 1 through 6. To enter data in HEX format, first press the [✳] key; the "Ready" light will flash. Enter the HEX value, then press the [✳] key again to return to the normal entry mode; the "Ready" light will stop flashing.

To enter HEX numbers:
A   Enter [✳][1][✳]   D   Enter [✳][4][✳]
B   Enter [✳][2][✳]   E   Enter [✳][5][✳]
C   Enter [✳][3][✳]   F   Enter [✳][6][✳]

Enter [✳] before and after each digit. Note that the last digit in each section does not require the final asterisk ([✳]) to be entered.

SYSTEM PROGRAMMING SECTIONS

[00] Binary Programming

This section is normally used upon instruction from factory technical personnel for specialized programming not covered by the standard programming instructions.

[01] Zone Definitions for Zones 1 to 8

Program eight 2-digit numbers in this section. The first digit determines the audible characteristics of the zone, while the second digit determines the zone's operation.

First Digit: Audible Characteristics

0 Audible: When programmed as Audible, the bell output will be activated when the zone goes into alarm

1 Silent: When programmed as Silent, the bell output will **not** be activated when the zone goes into alarm

2 Chime/Audible: When programmed as Chime/Audible, the keypad will sound a series of tones each time the zone is opened or closed while the system is disarmed. When the system is armed, the bell output will be activated when the zone goes into alarm.

3 Chime/Silent: When programmed as Chime/Silent, the keypad will sound a series of tones each time the zone is opened or closed while the system is disarmed. When the system is armed, the bell output will **not** be activated when the zone goes into alarm.

Second Digit: Zone Operation

0 Delay: has an entry and exit delay and is normally used for entry/exit doors. The exit delay starts as soon as the panel is armed. The zone may be opened and closed during the delay time without causing an alarm. After the exit delay time has expired, opening the zone will start the entry delay timer. During the entry delay time, the keypad buzzer will sound steadily to advise the user that the system should be disarmed. If the panel is disarmed before the entry time expires, no alarm will be generated.

The default times for this type of zone are a 30 second entry delay and a 120 second exit delay. The entry and exit delays may be independently programmed in Section [02] for periods from 1 second to 255 seconds. All zones programmed as type [0] will have the entry and exit delays as programmed in Section [02] or the default times if Section [02] is not programmed.

1 Instant: is normally used for door and window contacts and has the standard exit delay but is instant when opened after the exit delay expires. The exit delay will be the default time of 120 seconds or the time as established in programming Section [02].

2 Interior: Interior zones are used with interior motion detectors. Interior zones feature both an exit delay and an entry delays provided that a Delay zone has been tripped first. If the protected area is entered without coming through the normal Delay entrance and an Interior zone is tripped, an immediate alarm will be generated.

3 Interior Home-Away: If the system is armed and the Delay Zone is NOT tripped during the exit delay time, the type [3] zone will be bypassed.

4 24 Hour Bell: is active at all times and will create an alarm if the panel is armed or disarmed. This zone will always activate the bell output.

5 24 Hour Bell/Buzzer: operates as the type [4] except the bell output is activated only when the panel is armed, and only the keypad sounder is activated while the panel is disarmed.

6 24 Hour Buzzer: operates as the type [5] except only the buzzer will be activated in the armed or disarmed mode.

7 Auxiliary Delay: operates the same as the type [0] zone except the entry/exit times can be independently set in Section [02]. This zone type is useful when a zone with an entry and/or exit time is required that is different from the standard times as established for type [0] zones in Section [02]. If Section [08], Zone Light 3 is ON it will enable the system to be armed even if the auxiliary delay zone is open ("Ready" light ON). Also, the system can be armed with the auxiliary delay zone closed and then it can be opened before the auxiliary exit delay has expired. In both cases the auxiliary delay zone will not become active until both the auxiliary exit delay has expired and the zone is closed.

8 Delayed Fire: Any number of the 8 zones may be programmed as a fire zone. A fire zone is a supervised (normally-open alarm initiating contacts), end-of-line resistor circuit designed to accept latching 4-wire smoke detectors. See the fire circuit installation drawing.

On alarm, fire zone shorted, the bell / siren will pulse to indicate that a fire zone has been activated. Transmission by the digital communicator is delayed 30 seconds. If the alarm is acknowledged before the 30 second delay has expired, pressing the [#] key will silence the alarm and abort the transmission. If the alarm is NOT acknowledged within the 30 second period, transmission of the Alarm Code programmed in Section [34] will proceed and cannot be aborted. If the alarm has been silenced and all smoke detectors are not restored to normal, the alarm will re-sound after 90 seconds; 30 seconds after that, the communicator will transmit. If the alarm re-sounds, it may again be silenced by pressing the [#] key and the communicator transmission will be aborted if the alarm is silence within the 30 second transmission delay period.

To restore the smoke detectors to normal, clear all products of combustion from the detectors and perform a reset by pressing the [*] then [7] keys. See Section [06] for programming the PGM terminal for smoke detector reset. Pressing [*][7] will remove power from the smoke detectors for 5 seconds; if the detectors are clear of smoke, they will return to normal. If the detectors still have smoke in them, the alarm will re-sound and the sequence described above will repeat.

For an open on any zone programmed for fire, the "Trouble" light will come ON and the keypad sounder will beep every 10 seconds. The keypad trouble buzzer will sound and the "Trouble" light will come ON regardless of whether the panel is armed or disarmed. The communicator will transmit the trouble condition if programmed in Section [39]. The audible trouble indication may be silenced by pressing the [#] key. The "Trouble" light will only go OFF when all the fire zone troubles are cleared. To determine the type of trouble, press [*][2].

9 **Keyswitch Arm:** A keyswitch module may be connected to the zone programmed as Keyswitch Arm; momentary activation of this zone will alternatively arm and disarm the system and silence alarms. Note that the keypad will not display an indication when this type of zone is activated.

A **Home Away with Delay:** This zone operates similarly to the Type [3] zone with the following exception. If the zones are not bypassed manually (with the [*][1] command), or automatically (not opening a delay zone during the exit delay), and the Type A zone is tripped, a standard entry delay will be initiated. The Type A Zone allows the user time to disarm the system from within the premises before alarms are initiated by activating zones. Upon entering [*][1] to activate Home-away zones, the Type A zone will have a standard exit delay.

B **Forced Answer:** Activating this zone will force the system to pick-up the telephone line and await communications from a downloading computer. This feature is used for on-site downloading. Note that the keypad will not display an indication when this type of zone is activated.

[02] System Times

Six system times are programmed in this section; each entry requires a 3-digit number. Do not press the [#] key during data entry.

1 **Entry Delay Time** (001 to 255 seconds) This value determines the standard entry delay time. The factory default entry time is 30 seconds.

2 **Exit Delay Time** (001 to 255 seconds) This value determines the standard exit delay time. The factory default exit time is 120 seconds.

3 **Auxiliary Entry Delay** (001 to 255 seconds) This value determines the Auxiliary Entry Delay time applied to zones defined as Auxiliary Delay zones. The default auxiliary entry delay is 45 seconds.

4 **Auxiliary Exit Delay** (001 to 255 seconds) This value determines the Auxiliary Exit Delay time applied to zones defined as Auxiliary Delay zones. The default auxiliary exit delay is 180 seconds.

5 **Bell Cut-off Time** (001 to 255 minutes) This entry determines the time the bell / siren will sound before automatically turning off. The default bell cut-off time is 4 minutes.

6 **Zone Response Time** (010 to 255 × 10ms) This value determines the zone response time in milliseconds (ms). The response time is programmed in increments of 10 milliseconds, from a minimum of 0.1 seconds (100 milliseconds) to a maximum of 2.55 seconds (255 milliseconds). The default zone response time is 500ms.

NOTE: Auxiliary Delay times must be longer than standard delay times.

[03] Installer's Code

Program a 4-digit code in this Section. Only use digits 0 through 9 as numbers in the code; do not press the [*] or [#] keys. If an error is made entering the code, complete entry of the 4 digits then enter the section number again to enter the correct code. Do not press [*] or [#] while entering the code.

[04] Master Code

Program a 4-digit code in this Section.

[05] Second Master Code

Program a 4-digit code in this Section. The Second Master Code can be changed by the installer only and is useful where there are multiple control panels installed in a complex. The Second Master Code may be used as a "master key" for several systems. The Second Master Code may also be used to reprogram the First Master Code should the First Master Code be forgotten. Usually, the Second Master Code is not provided to the user. The default setting for the Second Master Code is [AAAA].

[06] Programmable Output Options

The PGM terminal can be programmed to operate in response to various system operations. The output pulse connects the PGM terminal to the negative power rail. The switching transistor used for this purpose can sink up to 55 mA.

[01] Utility Output, no Access Code

When activated by entering the [✱][7] command, the PGM output will go low for 5 seconds and the keypad buzzer will sound.

[02] 5-Second Reset Pulse

When this option is selected, the PGM output is normally low. That is, it is just the reverse of all other options which are normally high and go low when activated. This option is normally used as the negative return for power to 4-wire smoke detectors (positive comes from the AUX + terminal). To activate this output (to reset smoke detectors), enter the [✱][7] command. The PGM terminal will go high (open circuit), and thus remove power from the devices connected. The keypad buzzer will sound for the 5-second period. Refer to the Hook-up Diagram at the back of this manual for instructions on connecting smoke detectors.

[03] Strobe Output (Latched Alarm)

The PGM switches to ground on an alarm and remains low until the panel is disarmed. It can be used to indicate that an alarm has occurred before entering the premises.

[04] System Status (Armed / Disarmed)

The PGM output switches to and remains at ground as long as the panel is armed. The output goes high (open) while the panel is disarmed.

[05] Keypad Buzzer Follow Mode

The PGM output will go low when the keypad buzzer is activated by the "24 Hour Buzzer Zone", "Door Chime", "Entry Delay" and "Auto-Arm Alert" functions. The PGM output will go low for as long as the keypad buzzer is active. The PGM output will also be activated for the duration of the Exit Delay if an Audible Exit Delay is selected in Section [11] Zone Light 5.

[06] Courtesy Pulse (Follow Entry and Exit Delays)

This option provides an output which follows the entry and exit times. It can be used to turn on a courtesy light near the exit door for the duration of the entry / exit times.

[07] Entry Delay Follow Mode

This option provides an output which follows the Entry Delay only.

[08] Exit Delay Follow Mode

This option provides an output which follows the Exit Delay only.

[09] Not Used

[10] Ground Start Pulse

This option provides a 2-second output pulse before dialing begins to obtain the dial tone on Ground Start telephone equipment

[11] TLM and Alarm

The PGM output switches to ground if the system detects a TLM fault when there is an alarm condition. The output follows the time programmed for the Bell Timeout.

[12] Second Line Slave

The PGM output switches to ground after there have been four unsuccessful communication attempts. The output will remain switched until the system has hung up the telephone line. This feature may be used to activate an additional communicator for back-up communications.

[13] Failure to Communicate

The PGM output switches to ground if the system fails to communicate after 8 attempts to each phone number that will be tried according to the communicator call direction options. The output remains low until a successful communication takes place or until Trouble Condition 5 is cleared from the keypad. This option can be used to tie two systems together so that if one fails to communicate, the other system will report the failure.

[14] Kissoff Output

The PGM output switches to ground after the kissoff signal has been received to complete a successful communication to the central station. The output will switch to ground for 2 seconds.

[15] Remote Operation

This option alows the PGM output to be activated on command through the DLS-1 downloading software package. DLS-1 v5.3 or later software supports this option.

[07] Keypad Lockout Options

This section determines how the Keypad Lockout function operates. The first number determined how many invalid Access Codes need to be entered to lockout the keypad; enter a 2-digit number from 00 to 99.

The second number determines how long, in minutes, the keypad will be locked out. Enter a 2-digit number from 00 to 99. Programming either of the numbers in the section as 00 will disable the keypad lockout feature.

[08] First System Option Code

The First System Option Code is set using the Zone Lights as shown in the table below. Once Section [08] is entered, the 8 Zone Lights will indicate the status of each option. Press the number key corresponding to the Zone Light to turn an option ON and OFF. Press [0] to turn all the Zone Lights OFF.

Zone Light 1	ON	Normally Closed Loops
	• OFF	End-of-Line Resistor Loops
Zone Light 2	• ON	60 second bypass on power-up
	OFF	Zones active on power up
Zone Light 3	ON	Force Arm on Auxiliary Delay zones
	• OFF	No Force Arm on Auxiliary Delay zones
Zone Light 4	ON	Partial Close on Auto-Arm
	• OFF	No partial close reported
Zone Light 5	ON	Quick-Exit enabled
	• OFF	Quick-Exit disabled
Zone Light 6	ON	PC16OUT enabled
	• OFF	PC16OUT disabled
Zone Light 7	ON	AC excluded from Trouble
	• OFF	AC included in trouble
Zone Light 8	• OFF	For Future Use **Zone Light 8 must be OFF at all times**

• *Factory default setting*

[09] Second System Option Code

Zone Light 1	ON	Code 8: One-Time Use
	• OFF	Code 8: Normal Access Code
Zone Light 2	ON	Master Code not changeable
	• OFF	Master Code changeable
Zone Light 3	ON	Access Code required for Bypass
	• OFF	Access Code not required for Bypass
Zone Light 4	• ON	Access Code to cancel Auto-Arm
	OFF	No Access Code to cancel Auto-Arm
Zone Light 5	ON	Access Code for Utility Output
	• OFF	No Access Code for Utility Output
Zone Light 6	• ON	Alarms displayed while armed
	OFF	Alarms displayed while disarmed only
Zone Light 7	ON	Show bypass status while armed
	• OFF	Bypass status displayed if disarmed only
Zone Light 8	ON	Show bypassed zones when armed
	• OFF	Bypassed zones displayed when disarmed only

• *Factory default setting*

NOTE: If both Light 6 "Alarms displayed while armed" and Light 8 "Bypassed zones always displayed" are ON, only alarms will be displayed.

[10] Third System Option Code

Zone Light 1	ON	2-minute Keypad Timeout ♦
	● OFF	No Keypad Timeout
Zone Light 2	ON	[F] Key disabled
	● OFF	[F] Key enabled
Zone Light 3	● ON	[P] Key silent buzzer
	OFF	[P] Key audible buzzer
Zone Light 4	ON	[P] Key audible bell
	● OFF	[P] Key silent bell
Zone Light 5	ON	Bell shutdown enabled
	● OFF	Bell shutdown disabled
Zone Light 6	ON	Bell Squawk enabled
	● OFF	Bell Squawk disabled
Zone Light 7	● ON	No bell during Auto-Arm
	OFF	Bell during Auto-Arm
Zone Light 8	● OFF	For Future Use **Zone Light 8 must be OFF at all times**

● *Factory default setting*

♦ The 2-minute Keypad Timeout must **not** be selected if the LCD600 Keypad or the Escort Voice Assisted Security Control Module is used with the PC2525.

[11] Fourth System Option Code

Zone Light 1	ON	Bell pulses always
	● OFF	Bell pulses on Fire Alarm only
Zone Light 2	ON	Bell Squawk on Exit Delay
	● OFF	No Bell Squawk
Zone Light 3	ON	Bell Squawk on Entry Delay
	● OFF	No Bell Squawk
Zone Light 4	● ON	Audible Exit Fault enabled
	OFF	Audible Exit Fault disabled
Zone Light 5	● ON	Audible exit with urgency
	OFF	Standard Exit Delay
Zone Light 6	● ON	Urgency on Entry Delay
	OFF	Standard Entry Delay
Zone Light 7	ON	TLM disabled
	● OFF	TLM enabled
Zone Light 8	ON	TLM silent (trouble)
	● OFF	TLM audible if armed

● *Factory default setting*

Bell Squawk on Entry and Exit Delay: when this option is enabled, the bell/siren will sound with a pulsing tone for the duration of the Entry and/or Exit Delay times programmed in Section [02].

Audible Exit Fault: this option is intended to warn the user that the system has not been armed properly. If a Delay Zone is left open at the end of the Exit Delay, the Entry Delay will begin immediately and the bell/siren will sound with a steady tone to warn that the system has not been properly armed.

Entry and Exit Delay Urgency: when the urgency option is selected for the Audible Entry Delay, the keypad will sound a steady tone during the Entry Delay. During the last 10 seconds of the Entry Delay, the keypad will sound a pulsing tone to warn that the Entry Delay is about to expire.

When the urgency option is selected for the Audible Exit Delay, the keypad will sound a pulsing tone during the Exit Delay. During the last 10 seconds of the Exit Delay, the keypad will sound a faster pulsing tone to warn that the Exit Delay is about to expire.

[12] Bypass Mask for Zones 1 - 8

This Section determines which zones may be bypassed using the [*][1] Bypass Zones Command. If the Zone Light is ON, the zone can be bypassed; if the Zone Light is OFF, the zone cannot be bypassed. Note that fire zones cannot be bypassed.

[13] Bypass Mask for Access Codes 1 - 8

This Section determines which Access Codes may be used to bypass zones using the [*][1] Bypass Zones Command. If the Zone Light is ON, the Access Code may be used to bypass zones; if the Zone Light is OFF, the Access Code cannot be used to bypass zones.

COMMUNICATIONS PROGRAMMING SECTIONS

[30] First Phone Number

This is the first telephone number the Communicator will dial.

After entering Section [30], enter the telephone number the same way you would dial it on a touch-tone phone. Press [#] after the last digit to complete the telephone number programming.

A second dial tone search, as required in a PBX system, can be added by programming a HEX 'D' between the digits in the phone number where it is required. To enter a HEX 'D', press [*] then [4] then [*].

Instead of a dial tone search, a pause of 4 seconds can be inserted between digits in a telephone number.

Enter [*, 2, *] to dial a '*' (HEX 'B'). Enter [*, 3, *] for a 4-second pause (HEX 'C')

The total number of digits, including dial tone searches and pauses, must not exceed 17. Remember to press [#] to complete entry of the telephone number.

[31] First Account Code

The First Account Code is always transmitted to the First telephone number to identify the customer. Enter a 4-digit number. If the HEX digits 'A' to 'F' are required, remember to enter [*] before and after the number.

Where a zero is required in the account code, enter HEX 'A' (*, 1, *) to transmit 10 pulses which will be interpreted as a zero by the monitoring station receiver.

If a 3-digit code is required, as in 3/1 formats, enter [0] as the LAST digit. The [0] represents a null digit where no pulses are transmitted.

[32] Second Phone Number

This is the second telephone number to which the communicator will dial. Refer to Section [30] for programming instructions.

[33] Second Account Code

The second account code is always transmitted to the Second telephone number. Refer to Section [31] for programming instructions.

[34] Alarm Reporting Codes, Zones 1 - 8

Enter 8 2-digit numbers for the Alarm Reporting Codes for zones 1 to 8. These codes are used by the communicator to report alarms on zones 1 to 8.

Listed below are several programming examples and the resulting transmission using different formats for the reporting codes. Obtaining different formats requires entering data in the Account Code Section [31] or [33], the Reporting Code Sections [34] to [37], and the Communicator Format Section [44].

3/1 FORMAT - Non-extended reporting

Requires:
- 3-digit account code in sections [02] or [04]. For example, enter 1230 for account code 123
- Format Code [0], [1], [2], [3], [4] depending on receiver type in Section [23].
- Single line digit Alarm Reporting Code Section [05]. For example, enter [30] for single digit code 3 (0 = no pulses)
  TRANSMISSION SENT: 123 3

4/2 FORMAT - Non-extended reporting

Requires:
- 4-digit account code in sections [02] or [04]. For example, enter 1234 for account code 1234
- Format Code [0], [1], [2], [3], [4] depending on receiver type in Section [23].
- 2-digit Alarm Reporting Code in Section [05]. For example, enter [31] for 2-digit code 31
  TRANSMISSION SENT: 1234 31

3/1 FORMAT - Extended reporting

Requires:
- 3-digit Account Code in Section [02] or [04]. For example, enter 1230 for code 123
- Format Code [8], [9], [A], [B], [C] depending on receiver type in Section [23]
- 2-digit Alarm Reporting Code in Section [05]. For example, enter [31] for 2-digit code 31
  TRANSMISSION SENT: First Round   123 3
                      Second Round   333 1

If a transmission is not wanted for a particular reporting code, then enter '00' or 'FF' to disable that reporting code.

[35] Restoral Reporting Codes, Zones 1 - 8

These reporting codes are used by the communicator to transmit zone restorals for zones 1 through 8. Program 8 2-digit numbers in this section.

[36] Closing (Arming) Reporting Codes for Access Codes 1 - 8

Reporting codes 1 to 8 are used to identify closings for Access Codes 1 to 8. If partial closing is identified in Section [46], then alarm codes for manually bypassed zones will be transmitted with the partial closing code when the system is closed with one or more zones bypassed.

When transmitting in 4/2, 3/1 or any other of the extended formats, refer to Section [34] for transmission information. The 8 closing codes are programmed as follows:

[C1], [C2], [C3], [C4], [C5], [C6], [C7], [C8]

Where the first digit HEX 'C' represents a closing signal and the second digit represents the user Access Code which was used to arm the system (HEX 'C' could be any other number depending on what is used at the monitoring station).

The closing code transmission takes place after the exit delay time. Therefore, if the system is armed and disarmed before the expiry of the exit time, no closing transmission will take place.

The partial closing code, if used, is transmitted in tandem with the regular closing code to identify the closing as a partial closing. When the system has been armed using the Quick-Arm command [*][0] or using the Auto-Arm feature, Access Code 1 will be transmitted.

[37] Opening (Disarming) Reporting Codes for Access Codes 1 - 8

These 8 reporting codes correspond to the 8 Access Codes. When the system is disarmed using one of the Access Codes, the corresponding reporting code in this section is transmitted.

If the After Alarm Code is programmed, that code will be transmitted to the monitoring station on opening if an alarm occurred during previous armed period. This feature is useful for installations where openings and closings are not reported normally, but it is desired to have a report to the monitoring station on opening if an alarm did occur during the previous armed period. This feature allows the monitoring station to know when the user is on the premises and available to receive a report about alarms while the system was closed.

[38] Priority Alarms and Restorals

These reporting codes are used by the communicator to transmit the following list of troubles, alarms and restorals:
- Keypad [F]ire alarm
- Keypad [A]uxiliary alarm
- Keypad [P]anic alarm
- Keypad [F]ire restore
- Keypad [A]uxiliary restore
- Keypad [P]anic restore

Transmission for operation of the [F], [A] and [P] keys will only take place if codes are programmed in Section [38].

[39] Maintenance Alarm Reporting Codes

These reporting codes are used by the communicator to transmit the following list of alarms and restorals.
- Battery Trouble Alarm
- Auxiliary Power Supply Trouble Alarm
- AC Failure Trouble Alarm
- Periodic Test Transmission
- Bell Circuit Trouble Alarm
- System Test
- Fire Trouble Alarm

[40] Maintenance Restoral Reporting Codes

These reporting codes are used by the communicator to transmit the following list of alarms and restorals.
- Battery Trouble Restoral
- Fire Trouble Restoral
- AC Failure Trouble Restore
- Auxiliary Power Supply Trouble Restoral
- Bell Circuit Trouble Restoral
- TLM Restoral

[41] For Future Use

[42] Communication Variables

Enter four 2-digit numbers in this section; do not press the [#] key while entering data.

Swinger Shutdown (number of transmission)

This value defines the number of attempts (alarm and restoral pairs) per zone that the communicator will make before it shuts down for that zone ("swinger shutdown"). Program a 2-digit number form 00 to 99. When programmed as 00, the communicator will not be shut down and all alarms will be transmitted. Note that fire zones cannot be shut down; they will always transmit.

Delay Before Transmission (Burglary Zones Only)

This value defines the delay before transmission. The delay is for zones defined as burglary zones only; 24-hour zones and fire zones will not be delayed. Program a time from 00 to 99 seconds.

AC Failure Communication Delay (minutes)

This value determines the delay, in minutes, before an AC failure is reported. Program a number from 01 to 99.

Test Transmission Cycle (days)

This value determines the period in days between test transmissions. Program a number from 01 to 99.

[43] Test Transmission Time of Day

Program the time of the test transmission in this Section. Enter a 4-digit time using the 24-hour clock format (HH:MM). Valid entries are from 00 to 23 for the hours (HH), and 00 to 59 for the minutes (MM).

NOTE: If a test transmission is unsuccessful, a Failure to Communicate Trouble (indicated with Zone Light 5) will be generated. Note that the Test Reporting Code will not be transmitted with the next successful communication.

[44] Communicator Format Options

This section sets the type of format which will be sent to each of the two telephone numbers programmed in Sections [30] and [32]. For each telephone number, enter a 2-digit number from the list below.

The selection for each phone number is determined by the type of receiver being called. Enter the format number for the First telephone number first. It is necessary to program both telephone format numbers even if the first phone number is the only one being used.

[00] Silent Knight / Ademco Slow, 10 BPS, 1400 Hz handshake

[01] Sescoa, Franklin, DCI, Vertex, 20 BPS, 2300 Hz handshake

[02] Silent Knight Fast, 20 BPS, 1400 Hz handshake

[03] Radionics, 40 BPS, 2300/1400 Hz handshake

[04] Radionics, 40 BPS, 2300/1400Hz handshake with parity

[05] Sescoa Super Speed

[06] Silent Knight / Ademco Slow, 10 BPS, 1400 Hz handshake, extended

[07] Sescoa, Franklin, DCI, Vertex, 20 BPS, 2300 Hz handshake, extended

[08] Silent Knight Fast, 20 BPS, 1400 Hz handshake, extended

[09] Radionics, 40 BPS, 2300/1400 Hz handshake, extended

[10] Radionics, 40 BPS, 2300/1400 Hz handshake, with parity, extended

[11] Sescoa Super Speed with identified openings and closings

10 BPS and 20 BPS Formats

10 BPS is the standard slow format used on Silent Knight/Ademco receivers.
DATA = 1900Hz   KISSOFF = 1400Hz   SPEED = 10 BAUD

20 BPS is the standard fast format used on DCI, Franklin, Sescoa and Vertex receivers.
DATA = 1800Hz   KISSOFF = 2300Hz   SPEED = 20 BAUD

Radionics Format

For conventional 3/1 Radionics format the communications mode should be set to either Radionics rounds [09] or Radionics parity [10]. The extended version of the Radionics format is normally used. The following guidelines have been provided to help in configuring the PC2525 for Radionics format.

1   The customer account code must be only 3 digits with a zero making up the 4th digit (for example, program 1230 for account code 123).

2   The zone alarm reporting codes must all be single digit numerical codes with no extended 2nd round being sent. The zero in the 2nd digit of the reporting code tells the PC2525 not to send an extended round.

3   All other non-alarm reporting codes must be set up to send an extended 2nd round. The 1st digit of the reporting code is used to identify the event while the 2nd or extended digit is used to associate the event with a particular item (for example, a reporting code of E3 means restore zone 3; E for restore and 3 for zone 3).

4 The following is a list of 1st digit identifiers that should be used with the Radionics format:

- Restorals "E"   Example "E3" = Restore Zone 3
- Openings "B"   Example "B2" = Opening by User 2
- Closings "C"   Example "C4" = Closing by User 4
- Troubles "F"   Example "F5" = Trouble from Source 5
- Misc "D"   Example "D1" = Partial Closing

Sescoa Super Speed Format

The following guidelines are provided to help in configuring the PC2525 for use with the Sescoa Super Speed format.

1 The account code must be four decimal digits in length and in the range of 0001 to 3374.

2 The reporting codes must be 2 digits in length and programmed as follows.

Alarms Zones 1-8	Section [34]	A1 to A8
Restorals Zones 1-8	Section [35]	A1 to A8
All Opening Codes	Section [37]	BA
All Closing Codes	Section [36]	CA
Partial Closing	Section [36]	C1
Low Battery	Section [39]	E1
Battery Restorals	Section [40]	E1
AC Failure	Section[39]	E1
AC Restoral	Section [40]	E1
Bell Trouble	Section [39]	F1
Bell Restoral	Section [40])	F1
Troubles	Sections [39] & [40]	AA
Misc. Alarms	Section [38]	(A1 to 99)
Test Code	Section [39]	1C or DC
System Test Code	Section [39]	CC
After Alarm Code	Section [37]	B1
Auto-Arm Cancel Code	Section [36]	C8
TLM Restoral Code	Section [40]	EE

[45] Communicator Call Direction

This section requires four single digit entries using the numbers 0 to 3 only. This section defines how the communicator will call the telephone numbers programmed in Sections [30] and [32] to report the following events:

- Zone Alarms and Restorals
- Access Codes Openings and Closings
- Priority Alarms and Restorals
- Maintenance Alarms and Restorals

Enter ONE digit from the list below for each of the above categories.

0 Disables the function (no transmission for the group)

1 Call First phone number and back-up to the Second phone number when Section [13] Zone Light 1 is OFF and the panel has made 8 unsuccessful tries on the First phone number.

2 Call the Second phone number only

3 Always call both phone numbers

If the [#] key is pressed during data entry, you will be returned to the installer's Programming Mode and data for this section will NOT be saved.

[46] First Communicator Option Code

Zone Light 1	ON	Communicator disabled
	• OFF	Communicator enabled
Zone Light 2	ON	Restorals on Bell Timeout
	• OFF	Restorals follow zone
Zone Light 3	• ON	DTMF dialing
	OFF	Pulse dialing
Zone Light 4	ON	Call First Telephone Number only
	• OFF	Back-up to Second Telephone Number
Zone Light 5	ON	Partial close identified
	• OFF	Partial close not identified
Zone Light 6	ON	1400 Hz Radionics
	• OFF	2300 Hz Radionics
Zone Light 7	ON	Transmission limited to 24-hour period
	• OFF	Transmission limited to arming
Zone Light 8	ON	Closing confirmation enabled
	• OFF	Closing confirmation disabled

• *Factory default setting*

NOTE: *Closing confirmation must not be enabled if an Escort Voice Assisted Security Control module is being used.*

Closing Confirmation: Closing Confirmation requires that the monitoring station be successfully advised of a user's request to arm the system. This feature ensures that the monitoring station is aware that the system is being armed.

With Closing Confirmation enabled, the "Armed" light will come ON when an Access Code is entered to arm the system, but the Exit Delay will not begin. The Exit Delay will not begin until one of the following occurs:

• the closing is successfully transmitted to the monitoring station, and keypad sounds acknowledgement beeps to indicate that the monitoring station has been advised of the closing

• the closing is not successfully transmitted to the monitoring station and a Failure to Communicate Trouble is generated

• the user re-enters an Access Code to initiate the Exit Delay.

[47] - [48] For Future Use

DOWNLOADING PROGRAMMING SECTIONS

[70] First Downloading Option Code

Zone Light 1		ON	Ring Detect enabled
	•	OFF	Ring Detect disabled
Zone Light 2		ON	User Call-up enabled
	•	OFF	User Call-up disabled
Zone Light 3	•	ON	Answering machine connected to line
		OFF	No answering machine
Zone Light 4		ON	Call-back enabled
	•	OFF	Call-back disabled
Zone Light 5		ON	Periodic Downloading enabled
	•	OFF	Periodic Downloading disabled

Zone Lights 6 through 8 *For Future Use*

• *Factory default setting*

[71] Downloading Computer's Telephone Number

This is the telephone number used to contact the downloading computer. Enter a telephone number in this section. The telephone number may contain up to 17 digits.

[72] Downloading Access Code

This 4-digit code allows the system to verify that it is communicating with a valid downloading computer. Enter a 4-digit code using the numbers 0 through 9 only.

[73] Panel Identification Code

This 4-digit code allows the downloading computer to verify that it is communicating with a valid control panel. Enter a 4-digit code using the numbers 0 through 9 only.

[74] Number of Rings Before Answering

This section determines the number of rings before the system will pick-up the line and answer an incoming call. Refer to Section [75] Answering Machine Double-Call Timer.

[75] Answering Machine Double-Call Timer

This location sets the amount of time between calls when using the answering machine override feature. The answering machine override feature allows an answering machine to be connected to the same phone line as the control panel. To contact the control panel, the downloading computer calls the panel and hangs up after the first or second ring. If the computer then calls the panel a second time within the delay programmed in this section, the system will answer the call on the first ring.

[76] For Future Use

LOCKOUT AND RESET SECTIONS

[90] Installer Lockout Enable

When this feature is enabled, performing a hardware or software reset to restore the system's factory programming will not reset the Installer's Code or the Downloading Access Code.

To enable this feature, enter Section [90]. After entering Section [90], enter [Installer's Code][90] to confirm activation of this feature. If the Installer's Code and the Section number are not entered correctly, the keypad will sound a single long tone to indicate the error and the feature will not be enabled.

A panel that has this feature enabled will provide an audible indication upon power-up by clicking the telephone line relay 10 times. Ensure that the new Installer's Code has been entered correctly before enabling this feature as there is no way of re-entering the Programming Mode without the new Installer's Code.

[91] Installer Lockout Disable

Entering Section [91] while in the installer's Programming Mode will disable the Installer Lockout feature described in Section [90].

To enable this feature, enter Section [91]. After entering Section [91], enter [Installer's Code][91] to confirm activation of this feature. If the Installer's Code and the Section number are not entered correctly, the keypad will sound a single long tone to indicate the error and the feature will not be enabled.

NOTE: Panels returned to DSC with the Installer Lockout feature enabled and no other apparent problems will be subject to an additional service charge.

[99] Factory Default

Enter this section to reset the system's programming to the factory default settings.

To enable this feature, enter Section [99]. After entering Section [99], enter [Installer's Code][99] to confirm activation of this feature. If the Installer's Code and the Section number are not entered correctly, the keypad will sound a single long tone to indicate the error and the feature will not be enabled.

Hardware Reset of System Programming

If the Installer's Code is lost or forgotten, the system's memory must be restored to the factory default settings before programming may be performed. Note that if the Installer Lockout feature has been enabled, the Hardware Reset will not restore the default Installer's Code.

To restore the factory default programming:

1   Remove power from the system by disconnecting the AC and battery

2   Remove any connections to the Zone 1 and PGM terminals

3   Connect the Zone 1 and PGM terminals together

4   With the Zone 1 and PGM terminals connected, apply AC power to the system

5   Wait for 20 seconds after applying power and them remove the connection between the Zone 1 and PGM terminals

6   The system's factory default programming has now been restored. Note that if the Installer's Lockout feature had been enabled, the Installer's Code and the Downloading Access Code will not be reset to the default settings.

FOR THE RECORD

Customer _____

Address _____

_____

Phone _____ Installation Date _____

CONTACTS:

#1 Name _____ Phone _____

#2 Name _____ Phone _____

#3 Name _____ Phone _____

Installer's Code _____

ZONES

Zone	Type	Protected Area
1	_____	_____
2	_____	_____
3	_____	_____
4	_____	_____
5	_____	_____
6	_____	_____
7	_____	_____
8	_____	_____

Entry Time _____ Exit Time _____

Bell Cutoff _____

KEYPAD ZONES

[F] Key ☐ ON ☐ OFF   Quick-Arm   ☐ ON ☐ OFF

[A] Key ☐ ON ☐ OFF   Quick-Exit   ☐ ON ☐ OFF

[P] Key ☐ ON ☐ OFF   Installers Lockout ☐ ON ☐ OFF

Installer's Name: _____

NOTES

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

[00] Binary Programming   Page 12

[01] Zone Definitions for Zones 1 to 8   Page 12

Default

2 0	_____	Zone 1
2 1	_____	Zone 2
2 1	_____	Zone 3
2 1	_____	Zone 4
0 2	_____	Zone 5
0 2	_____	Zone 6
0 2	_____	Zone 7
0 2	_____	Zone 8

First Digit

0 Audible
1 Silent
2 Chime, Audible *
3 Chime, Silent

Second Digit

0 Delay
1 Instant
2 Interior
3 Interior Home-Away
4 24-hour Bell
5 24-hour Bell/Buzzer
6 24-hour Buzzer
7 Auxiliary Delay
8 Delayed Fire
9 Keyswitch Arm
A Home-Away with Delay
B Forced Answer

[02] System Times   Page 13

Default

0 3 0	_____	Entry Delay (seconds)
1 2 0	_____	Exit Delay (seconds)
0 4 5	_____	Auxiliary Entry Delay (seconds)
1 8 0	_____	Auxiliary Exit Delay (seconds)
0 0 4	_____	Bell Cut-off Time (minutes)
0 5 0	_____	Loop Response Time (× 10 ms)

NOTE: **Auxiliary Delay Times** must be longer than Standard Delay times.

Loop Response Times must be in the range of "010" to "255"; do not program times less than "010".

[03] Installer's Code   Page 13

Default

2 5 2 5   _____

[04] Master Code   Page 13

Default

1 2 3 4   _____

[05] Second Master Code   Page 13

Default

A A A A   _____

[06] Programmable Output Options   Page 14

Default

0 1   _____

01 Utility Output
02 5-second Reset Pulse
03 Strobe Output (Latched Alarm)
04 System Status (Arm/Disarm)
05 Keypad Buzzer Follow Mode
06 Courtesy Pulse (Entry/Exit)
07 Entry Delay Follow Mode
08 Exit Delay Follow Mode

09 For Future Use
10 Ground Start Pulse
11 TLM and Alarm
12 2nd Line Slave
13 Failure to Communicate
14 Kissoff Output
15 Remote Operation (requires DLS-1 v5.3 or later)

[07] Keypad Lockout Options   Page 15

Default

0 . 0	_____	Number of Invalid Codes before Lockout
0 . 0	_____	Lockout Duration (minutes)

[08] First System Option Code   Page 15

Default			Zone Light ON	Zone Light OFF*
OFF	_____	Zone Light 1	N/C Loops	End-of-line Resistor Loops
ON	_____	Zone Light 2	60 second bypass on power-up	Zones active on power-up
OFF	_____	Zone Light 3	Force Arm on Auxiliary Delays	No Force Arm on Auxiliary Delays
OFF	_____	Zone Light 4	Partial close on Auto-Arm	No partial close reported
OFF	_____	Zone Light 5	Quick-Exit enabled	Quick-Exit disabled
OFF	_____	Zone Light 6	PC16OUT enabled	PC16OUT disabled
OFF	_____	Zone Light 7	AC excluded from Trouble	AC included in Trouble
OFF	_____	Zone Light 8	*For Future Use Zone Light 8 must be OFF at all times*	

[09] Second System Option Code   Page 15

Default			Zone Light ON	Zone Light OFF
OFF	_____	Zone Light 1	Code 8: One-Time Use	Code 8: Normal Access Code
OFF	_____	Zone Light 2	Master Code not changeable	Master Code changeable
OFF	_____	Zone Light 3	Access Code required for Bypass	Access Code not required for Bypass
ON	_____	Zone Light 4	Access Code to cancel Auto-Arm	No Access Code to cancel Auto-Arm
OFF	_____	Zone Light 5	Access Code for Utility Output	No Access Code for Utility Output
ON	_____	Zone Light 6	Alarms displayed while armed	Alarms displayed while disarmed only
OFF	_____	Zone Light 7	Show bypass status while armed	Bypass status displayed if disarmed only
OFF	_____	Zone Light 8	Show bypassed zones when armed	Bypasses zones displayed if disarmed only

[10] Third System Option Code   Page 16

Default			Zone Light ON	Zone Light OFF
OFF	_____	Zone Light 1	2-minute Keypad Timeout	No Keypad Timeout
OFF	_____	Zone Light 2	[F] Key disabled	[F] Key enabled
ON	_____	Zone Light 3	[P] Key silent buzzer	[P] Key audible buzzer
OFF	_____	Zone Light 4	[P] Key audible bell	[P] Key silent bell
OFF	_____	Zone Light 5	Bell shutdown enabled	Bell shutdown disabled
OFF	_____	Zone Light 6	Bell Squawk enabled	Bell Squawk disabled
ON	_____	Zone Light 7	No bell during Auto-Arm	Bell during Auto-Arm
OFF	_____	Zone Light 8	*For Future Use Zone Light 8 must be OFF at all times*	

[11] Fourth System Option Code   Page 16

Default			Zone Light ON	Zone Light OFF
OFF	_____	Zone Light 1	Bell pulses always	Bell pulses on Fire Alarm only
OFF	_____	Zone Light 2	Bell Squawk on Exit Delay	No Bell Squawk
OFF	_____	Zone Light 3	Bell Squawk on Entry Delay	No Bell Squawk
ON	_____	Zone Light 4	Audible Exit Fault enabled	Audible Exit Fault disabled
ON	_____	Zone Light 5	Audible exit with urgency	Standard Exit Delay
ON	_____	Zone Light 6	Urgency on Entry Delay	Standard Entry Delay
OFF	_____	Zone Light 7	TLM disabled	TLM enabled
OFF	_____	Zone Light 8	TLM silent (trouble)	TLM audible if armed

[12] Bypass Mask for Zones 1 - 8   Page 16
Default

_ON_   _____   Zone Light 1

_ON_   _____   Zone Light 2

_ON_   _____   Zone Light 3

_ON_   _____   Zone Light 4

_ON_   _____   Zone Light 5

_ON_   _____   Zone Light 6

_ON_   _____   Zone Light 7

_ON_   _____   Zone Light 8

[13] Bypass Mask for Access Codes 1 - 8   Page 16
Default

_ON_   _____   Zone Light 1

_ON_   _____   Zone Light 2

_ON_   _____   Zone Light 3

_ON_   _____   Zone Light 4

_ON_   _____   Zone Light 5

_ON_   _____   Zone Light 6

_ON_   _____   Zone Light 7

_ON_   _____   Zone Light 8

[30] First Phone Number   Page 17

_____

[31] First Account Code   Page 17

_____

[32] Second Phone Number   Page 17

_____

[33] Second Account Code   Page 17

_____

[34] Alarm Reporting Codes, Zones 1 - 8   Page 17

_____   Zone 1 Alarm

_____   Zone 2 Alarm

_____   Zone 3 Alarm

_____   Zone 4 Alarm

_____   Zone 5 Alarm

_____   Zone 6 Alarm

_____   Zone 7 Alarm

_____   Zone 8 Alarm

[35] Restoral Reporting Codes, Zones 1 - 8   Page 18

____   Zone 1 Restoral

____   Zone 2 Restoral

____   Zone 3 Restoral

____   Zone 4 Restoral

____   Zone 5 Restoral

____   Zone 6 Restoral

____   Zone 7 Restoral

____   Zone 8 Restoral

[36] Closing (Arming) Reporting Codes for Access Codes 1 - 8   Page 18

____   Access Code 1

____   Access Code 2

____   Access Code 3

____   Access Code 4

____   Access Code 5

____   Access Code 6

____   Access Code 7

____   Access Code 8

____   Partial Closing Code

____   Auto-Arm Cancellation Code

[37] Opening (Disarming) Reporting Codes for Access Codes 1 - 8   Page 18

____   Access Code 1

____   Access Code 2

____   Access Code 3

____   Access Code 4

____   Access Code 5

____   Access Code 6

____   Access Code 7

____   Access Code 8

____   Opening After Alarm Code

[38] Priority Alarm and Restoral Reporting Codes   Page 18

____   Keypad [F]ire Alarm

____   Keypad [A]uxiliary Alarm

____   Keypad [P]anic Alarm

____   *For Future Use - Do Not Program*

____   Keypad [F]ire Restoral

____   Keypad [A]uxiliary Restoral

____   Keypad [P]anic Restoral

____   *For Future Use - Do Not Program*

[39] Maintenance Alarm Reporting Codes *Page 18*

____	Battery Trouble Alarm
____	AC Failure Trouble Alarm
____	Bell Circuit Trouble Alarm
____	Fire Trouble Alarm
____	Auxiliary Power Supply Trouble Alarm
____	Periodic Test Transmission
____	System Test

[40] Maintenance Restoral Reporting Codes *Page 18*

____	Battery Trouble Restoral
____	AC Failure Trouble Restoral
____	Bell Circuit Trouble Restoral
____	Fire Trouble Restoral
____	Auxiliary Power Supply Trouble Restoral
____	TLM Restoral

[41] For Future Use *Page 18*

[42] Communication Variables *Page 18*

Default

0 3	____	Swinger Shutdown (number of transmissions)
0 0	____	Delay Before Transmission (Burglary Zones)
3 0	____	AC Failure Communication Delay (minutes)
3 0	____	Test Transmission Cycle (days)

[43] Test Transmission Time-of-Day *Page 19*

Default

9 9 9 9   _____

[44] Communicator Format Options *Page 19*

Default

0 1	____	First Telephone Number
0 1	____	Second Telephone Number

[00] Silent Knight / Ademco Slow, 10 BPS, 1400 Hz handshake

[01] Sescoa, Franklin, DCI, Vertex, 20 BPS, 2300 Hz handshake

[02] Silent Knight Fast, 20 BPS, 1400 Hz handshake

[03] Radionics, 40 BPS, 2300/1400 Hz handshake

[04] Radionics, 40 BPS, 2300/1400Hz handshake with parity

[05] Sescoa Super Speed

[06] Silent Knight / Ademco Slow, 10 BPS, 1400 Hz handshake, extended

[07] Sescoa, Franklin, DCI, Vertex, 20 BPS, 2300 Hz handshake, extended

[08] Silent Knight Fast, 20 BPS, 1400 Hz handshake, extended

[09] Radionics, 40 BPS, 2300/1400 Hz handshake, extended

[10] Radionics, 40 BPS, 2300/1400 Hz handshake, with parity, extended

[11] Sescoa Super Speed with identified openings and closings

[45] Communicator Call Direction   Page 20

Default

_1_	__	Zone Alarms and Restorals
_1_	__	Access Code Openings and Closings
_1_	__	Priority Alarms and Restorals
_1_	__	Maintenance Alarms and Restorals

Enter:
[0]   No transmissions for this group
[1]   Call First Telephone Number and back-up to Second Telephone Number (if enabled)
[2]   Call Second Telephone Number only
[3]   Always call both telephone numbers

[46] First Communicator Option Code   Page 21

Default		Zone Light ON	Zone Light OFF
OFF	__ Zone Light 1	Communicator disable	Communicator enabled
OFF	__ Zone Light 2	Restorals on Bell Timeout	Restorals follow zone
_ON_	__ Zone Light 3	DTMF dialing	Pulse dialing
_ON_	__ Zone Light 4	Call First Telephone Number only	Back-up to Second Telephone Number
OFF	__ Zone Light 5	Partial close identified	Partial close not identified
OFF	__ Zone Light 6	1400 Hz Radionics	2300 Hz Radionics
OFF	__ Zone Light 7	Transmission limited to 24-hour period	Transmission limited to arming
OFF	__ Zone Light 8	Close confirmation enabled	Close confirmation disabled

[47] For Future Use   Page 21

[48] For Future Use   Page 21

[70] First Downloading Option Code   Page 22

Default		Zone Light ON	Zone Light OFF
OFF	__ Zone Light 1	Ring Detect enabled	Ring Detect disabled
OFF	__ Zone Light 2	User Call-up enabled	User Call-up disabled
_ON_	__ Zone Light 3	Answering machine connected to line	No answering machine
OFF	__ Zone Light 4	Call-back enabled	Call-back disabled
OFF	__ Zone Light 5	Periodic Downloading enabled	Periodic Downloading disabled
OFF	__ Zone Light 6	For Future Use	
OFF	__ Zone Light 7	For Future Use	
OFF	__ Zone Light 8	For Future Use	

[71] Downloading Computer's Telephone Number   Page 22

_____

[72] Downloading Access Code   Page 22

Default

_2,5,2,5_   _____

[73] Panel Identification Code   Page 22

Default

_2,5,2,5_   _____

[74] Number of Rings Before Answering   Page 22

Default

_____ , 1_2__   Valid entries are [01] to [12]

[75] Answering Machine Double-Call Timer   Page 22

Default

_____ , 0_6._0.___   Valid entries are [001] to [249]   ﹅

[76] For Future Use   Page 22

[90] Installer Lockout Enable   Page 23
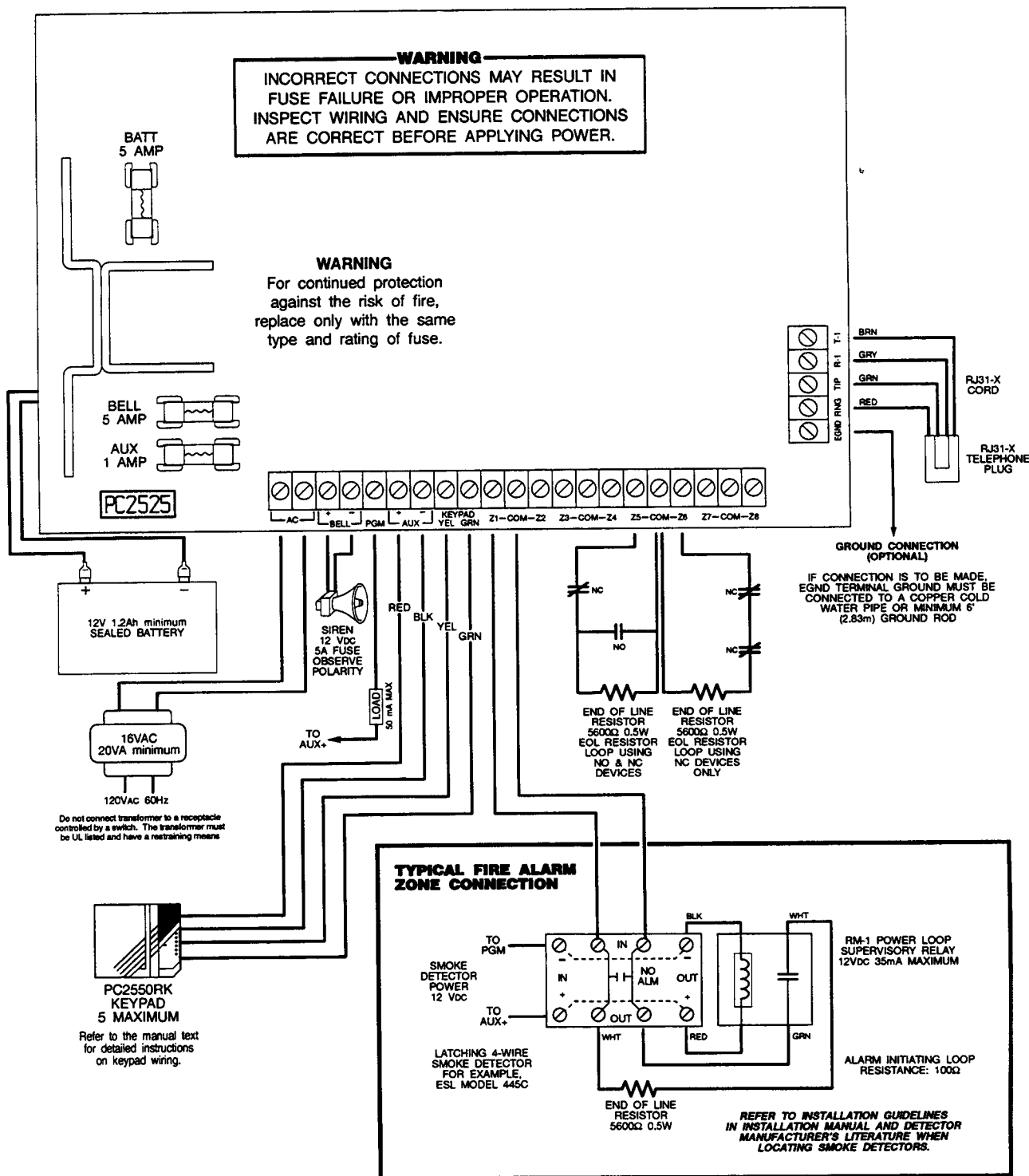
Enter [90][Installer's Code][90]

[91] Installer Lockout Disable   Page 23

Enter [91][Installer's Code][91]

[99] Factory Default   Page 23

Enter [99][Installer's Code][99]

HOOK-UP DIAGRAM

WARNING
INCORRECT CONNECTIONS MAY RESULT IN FUSE FAILURE OR IMPROPER OPERATION. INSPECT WIRING AND ENSURE CONNECTIONS ARE CORRECT BEFORE APPLYING POWER.

BATT 5 AMP

WARNING
For continued protection against the risk of fire, replace only with the same type and rating of fuse.

BELL 5 AMP

AUX 1 AMP

PC2525

BRN
GRY
GRN
RED

T-1
R-1
TIP
RNG
EGND

RJ31-X CORD

RJ31-X TELEPHONE PLUG

—AC— —BELL— PGM —AUX— KEYPAD YEL GRN Z1—COM—Z2 Z3—COM—Z4 Z5—COM—Z6 Z7—COM—Z8

GROUND CONNECTION (OPTIONAL)

IF CONNECTION IS TO BE MADE, EGND TERMINAL GROUND MUST BE CONNECTED TO A COPPER COLD WATER PIPE OR MINIMUM 6' (2.83m) GROUND ROD

12V 1.2Ah minimum SEALED BATTERY

RED BLK YEL GRN

SIREN 12 VDC 5A FUSE OBSERVE POLARITY

LOAD 50 mA MAX

TO AUX+

16VAC 20VA minimum

120VAC 60Hz

Do not connect transformer to a receptacle controlled by a switch. The transformer must be UL listed and have a restraining means

NC
NO
NC
NC

END OF LINE RESISTOR 5600Ω 0.5W EOL RESISTOR LOOP USING NO & NC DEVICES

END OF LINE RESISTOR 5600Ω 0.5W EOL RESISTOR LOOP USING NC DEVICES ONLY

PC2550RK KEYPAD 5 MAXIMUM

Refer to the manual text for detailed instructions on keypad wiring.

TYPICAL FIRE ALARM ZONE CONNECTION

TO PGM

SMOKE DETECTOR POWER 12 VDC

TO AUX+

BLK WHT

IN
IN
NO ALM
OUT
OUT

WHT RED GRN

LATCHING 4-WIRE SMOKE DETECTOR FOR EXAMPLE, ESL MODEL 445C

END OF LINE RESISTOR 5600Ω 0.5W

RM-1 POWER LOOP SUPERVISORY RELAY 12VDC 35mA MAXIMUM

ALARM INITIATING LOOP RESISTANCE: 100Ω

REFER TO INSTALLATION GUIDELINES IN INSTALLATION MANUAL AND DETECTOR MANUFACTURER'S LITERATURE WHEN LOCATING SMOKE DETECTORS.

Temperature Range: 0°C–47°C (32°F–120°F)

Maximum Humidity: 85% R.H.

Recognized limited energy cable should be used. Observe NEC wiring requirements and local codes as defined by the authority having jurisdiction.

Security detection devices that require power from the control panel must operate over the voltage range of 10.0 to 14.0 VDC. The DSC BRAVO PIR and FORCE 2 PIR/Microwave detectors are recommended motion detectors.

LIMITED WARRANTY

Digital Security Controls Ltd. warrants that for a period of twelve months from the date of purchase, the product shall be free of defect in materials and workmanship under normal use and that in fulfilment of any breach of such warranty, Digital Security Controls Ltd. shall, at its option, repair or replace the defective equipment upon return of the equipment to its repair depot. This warranty applies only to defects in parts and workmanship and not to damage incurred in shipping or handling, or damage due to causes beyond the control of Digital Security Controls Ltd. such as lightning, excessive voltage, mechanical shock, water damage, or damage arising out of abuse, alteration or improper application of the equipment.

The foregoing warranty shall apply only to the original buyer, and is and shall be in lieu of any and all other warranties, whether expressed or implied and of all other obligations or liabilities on the part of Digital Security Controls Ltd. This warranty contains the entire warranty. Digital Security Controls Ltd. neither assumes, nor authorizes any other person purporting to act on its behalf to modify or to change this warranty, nor to assume for it any other warranty or liability concerning this product.

In no event shall Digital Security Controls Ltd. be liable for any direct, indirect or consequential damages, loss of anticipated profits, loss of time or any other losses incurred by the buyer in connection with the purchase, installation or operation or failure of this product.

WARNING: Digital Security Controls Ltd. recommends that the entire system be completely tested on a regular basis. However, despite frequent testing, and due to, but not limited to, criminal tampering or electrical disruption, it is possible for this product to fail to perform as expected.

PC2525 FALSE ALARM PREVENTION FEATURES

The PC2525 has been designed with several new features designed to reduce the possibility of false alarms caused by operator error. These features include the following:

Section [02] System Times

System times now allow more than 4 minutes for the Entry or Exit delay to allow users more time to enter or leave the premises where circumstances warrant. The default setting for the Exit Delay is set at 120 seconds.

Section [06] Programmable Output Options

Option 07 and 08 allow the PGM Output to be activated for the Entry Delay and Exit Delay respectively. These options may be used to activate warning devices to warn occupants on the premises that the security system is being armed or disarmed.

Section [11] 4th System Option Code

The 4th System Option Code adds 5 false alarm prevention features. Each feature is enabled by turning the appropriate Zone Light ON.

Zone Light 2	**Bell Squawk During Exit Delay**
	The bell/siren will squawk during the Exit Delay.
Zone Light 3	**Bell Squawk During Entry Delay**
	The bell/siren will squawk during the Entry Delay.
Zone Light 4	**Audible Exit Fault**
	When enabled, the bell/siren will sound with a steady tone to warn the user that the system has been armed with a Delay Zone left open.
Zone Light 5	**Audible Exit Delay with Urgency**
	The Keypad will sound a pulsing tone during the Exit Delay. The pulsing tone will quicken during the last 10 seconds of the Exit Delay to warn that the delay is about to expire.
Zone Light 6	**Urgency Applied to Entry Delay**
	The Keypad will sound a steady tone during the Entry Delay. The Keypad will then sound a pulsing tone during the last 10 seconds of the Entry Delay to warn that the delay is about to expire.

New Downloading Software

Downloading Software DLS-1 Version 5.3U must be used to upload and download with the new PC2525 v1.0 Software. Earlier versions of the DLS-1 software are not compatible with the PC2525.